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## INCOME DISTRIBUTION, AUSTRALIA, 1978-79 INDIVIDUALS (PRELIMINARY) (Previously Income Distribution (Preliminary))

### INQUIRIES

If you want to know more about these statistics ring Mr Graham Angus on Canberra (062) 526572 or State offices, or write to Information Services, ABS, P.O. Box 10, Belconnen, A.C.T. 2616

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### MAIN FEATURES

**NOTE.** The estimates are subject to sampling variability, as explained in paragraphs 18 to 22. Standard errors are shown on page 3.

In 1978-79 the average earned income of male full-year, full-time workers was \$12,320. The corresponding figure for females was \$8,950. (Table 4).

The age groups with the highest average earned income were 35-44 years for males (average \$13,650) and 25-34 years for females (average \$10,100). (Table 4).

For 67 per cent of male income recipients, wages or salary was the principal source of income. Their average income from all sources was \$11,570. (Table 3).

The principal source of income for 43 per cent of female income recipients was government social security and welfare cash benefits. Their average income from all sources was \$1,980. (Table 3).

For 20 per cent of the male income recipients, total income was more than \$14,440 and for 20 per cent of the females it was more than \$8,220. In 1968-69 the corresponding figures were \$4,530 and \$1,970. (Tables 1 and 2).

### EXPLANATORY NOTES

#### Introduction

This publication contains preliminary statistics relating to individual income recipients in 1978-79. The data are derived from a survey of annual income conducted throughout Australia in the period December 1979. Further details of income for individuals, income units and families progressively.

The survey was based on a multi-stage area sample of private dwellings (about 15,000 houses, flats, and private dwellings (hotels, motels, etc.) and about one-third of one per cent of the population of Australia.

### Scope

3. The estimates relate to all persons aged fifteen years and over except: members of the Australian defence forces living in military establishments; certain diplomatic personnel of overseas governments customarily excluded from census and estimated populations; overseas visitors holidaying in Australia; members of non-Australian defence forces (and their dependants) stationed in Australia; students in boarding schools, patients in hospitals and sanatoria and inmates of gaols, reformatories, etc.

### Interpretation of results

4. Since the estimates are based on a sample, they are subject to sampling variability. (See paragraphs 18 to 22 below.) In addition, they are subject to errors of response and reporting. Although some respondents referred to their records, in many cases the answers to the questions on income were based on memory. Some understatement in the estimates may be expected because of imperfect recall or misunderstanding, particularly of minor or irregular sources of income.

5. Persons who had lived outside of Australia for more than twelve weeks during 1978-79, and had worked overseas in a job or jobs unrelated to an Australian job or business, were excluded from all tables. All migrants who arrived in Australia after September 1978 were excluded.

6. Other points which should be kept in mind in interpreting the results of this survey are as follows:

- (a) For the purposes of the survey, income was defined to include:
  - (i) all income received while living in Australia, including income received from an overseas source and
  - (ii) all income received from an Australian source while living overseas.
- (b) The income received by a person does not necessarily reflect the standard of living of that person.

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person. For example, although alimony, maintenance payments and other regular allowances were counted as income, gifts or donations such as might be made by relatives were not included, even though such gifts or donations may have been the sole means of support.

- (c) Personal characteristics such as age and marital status may have changed between the reference year and the time of the interview.

#### Definitions

7. *Income.* Questions were asked in respect of each person aged fifteen years or over, except those attending school full time, on the amount of income received in 1978-79 from each of the following sources: wages or salary; own business, farm, profession, etc. (net income); share in a partnership (net income); government social security and welfare cash benefits; superannuation; interest, dividends, rent, etc.; other sources, e.g. trust or will, maintenance or alimony.

8. *Income from wages or salary* was defined as income from all wage or salary jobs before the deduction of tax. Workers' compensation payments (other than lump sum payments) for temporary loss of wages or salary were included. Items such as payments in kind, employer contributions to board or rent, gratuities and tips, etc. may be subject to misreporting or omission.

9. *Income from own business, farm, profession, etc. and income from a share in a partnership.* In both of these cases, income was defined to be net of business expenses. If no income had been received in 1978-79 or a loss had been made, income from these sources was recorded as nil.

10. *Earned income* is income from wages or salary or income from own business, farm, profession, etc. or income from a share in a partnership or the sum of any of these components.

11. *Income from government social security and welfare cash benefits* includes income received through programmes of assistance to aged persons, incapacitated and handicapped persons, unemployed and sick persons, veterans and their dependants, widowed and deserted spouses, families and children; cash benefits for education; and other social security and welfare programmes.

12. *Income from superannuation* comprises regular payments made to a retired person or his survivors by a former employer, either directly or through a superannuation fund, insurance company, etc. Any lump sum payment received by a person on his retirement was excluded.

13. *Interest, dividends, rent, etc.* includes interest on savings, bonds, debentures, etc., dividends from stocks and shares, net income from rental of a house or other property and net royalties.

14. *Income from other sources* comprises income from items such as private educational scholarships; maintenance or alimony; a trust or will; and an annuity. Income paid at regular intervals and received by a beneficiary under a will, settlement, deed, gift or instrument of trust was included. However, a lump sum payment from any of these sources was not regarded as income.

15. *Median income* is the amount which divides the distribution into two equal groups, one having incomes above the median and the other having incomes below it. Medians were calculated from grouped data with linear interpolation being used within the class interval in which the median fell.

16. *Mean income* is the amount obtained by dividing the total income of a group (e.g. income recipients, a given age group) by the number in that group.

17. *Full-year, full-time workers* are those who, for at least 50 weeks during 1978-79, worked or were on paid leave and were engaged mostly in full-time work. A person who worked for 26 weeks full-time and for 24 weeks part-time was classified as a full-year, full-time worker. However, it should be noted that most persons who work for a full year engage in either full-time or part-time work, but not in both.

#### Reliability of the estimates

18. Since the estimates are based on information obtained from occupants of a sample of dwellings they are subject to sampling variability; that is they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure is the *relative standard error*, which expresses the standard error as a percentage of the estimate.

19. Space does not allow for the separate indication of the standard error of all estimates in this publication. The table below shows standard errors of estimates of numbers of persons for a range of estimate sizes, together with relative standard errors of estimates of mean and median incomes. These figures will not give a precise measure of the standard error of a particular estimate, but they will provide an indication of its magnitude.

20. Examples of the calculation and use of standard errors are given below:

- (a) From the table it will be seen that the estimate of 104,900 persons whose total income was



between \$1,400 and \$1,600 (Table 2) has a standard error of about 5,700. Therefore there are about two chances in three that the number of persons with total income in that range would be between 99,200 and 110,600 and about nineteen chances in twenty that it would be between 93,500 and 116,300 if all dwellings had been included in the survey.

- (b) Table 3 shows that the estimated number of females aged 55-59 years was 306,200 and that their estimated mean income was \$4,780. From the table below it will be seen that the relative standard error of the mean income of 306,200 persons is about 3.1 per cent. As 3.1 per cent of \$4,780 is about \$148, there are about two chances in three that the mean income would be between \$4,632 and \$4,928 and about nineteen chances in twenty that it would be between \$4,484 and \$5,076

21. As the standard errors in the table show, the smaller the estimate the higher is the relative standard error. Very small estimates are thus subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In this publication estimates below 6,000, and means and medians based on such estimates, have not been included. Although figures for the number of unemployed persons can in some cases be derived by subtraction they should not be regarded as reliable.

22. The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the numerator and the size of the denominator. The relative standard error for estimated percentages given in this publication can be derived by using the formula:

Relative standard error (R.S.E.) of

$$\left(\frac{x}{y}\right) = \sqrt{\{R.S.E. (x)\}^2 + \{R.S.E. (y)\}^2}$$

The relative standard errors of the numerator and denominator are obtained as shown in paragraph 20 above.

23. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may have occurred because of imperfections in reporting by interviewers and respondents. Inaccuracies of this kind are referred to as the *non-sampling error*, and they may occur in any enumeration, whether it be a full count or only a sample. See paragraph 4.

Size of estimate (persons)	Standard errors of estimates		Relative standard error of median or mean income (per cent)
	Standard error (number)	Relative Standard error (per cent)	
6,000	1,560	26.0	22.1
10,000	1,980	19.8	17.2
20,000	2,830	14.2	12.1
50,000	4,100	8.2	7.7
100,000	5,500	5.5	5.4
200,000	7,200	3.6	3.8
300,000	8,500	2.8	3.1
500,000	10,200	2.0	2.4
1,000,000	12,900	1.3	1.7
2,000,000	15,600	0.8	1.1
5,000,000	21,300	0.4	0.7

#### Related publications

24. Current publications produced by the ABS are listed in *Catalogue of Publications* (1101.0), which is available free of charge from any ABS office.

#### Symbols and other usages

\* Subject to sampling variability too high for most practical uses. See paragraph 21.

25. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

R.J. CAMERON  
Australian Statistician

TABLE 1. - ALL INCOME RECIPIENTS : QUINTILES (a) OF TOTAL INCOME, 1968-69, 1973-74 AND 1978-79

	Per cent of persons receiving incomes below the levels shown	Males Income level (\$)			Females Income level (\$)		
		1968-69	1973-74	1978-79 (b)	1968-69	1973-74	1978-79 (b)
1st quintile	20	1,670	2,580	4,020	150	190	930
2nd quintile	40	2,680	4,750	8,300	620	1,160	2,710
3rd quintile	60	3,410	6,080	11,000	1,060	2,000	4,450
4th quintile	80	4,530	7,910	14,440	1,970	3,860	8,220

(a) The points dividing the successive fifths of the income distribution. (b) Excludes persons who lived outside of Australia for more than twelve weeks and had worked overseas in a job or jobs unrelated to an Australian job or business. See paragraph 5.



TABLE 2. ALL INCOME RECIPIENTS : TOTAL INCOME, AUSTRALIA, 1978-79

				Number ('000)			Cumulative per cent of total				
				Males	Females	Persons					
				Males	Females	Persons	Males	Females	Persons		
Total income (\$) —				Total income (\$) —							
1 and under	250			27.7	295.7	323.3	Under	250	0.6	6.2	3.4
250 "	"	500		18.9	361.8	380.7	"	500	1.0	13.8	7.3
500 "	"	750		24.7	140.9	165.5	"	750	1.5	16.7	9.1
750 "	"	1,000		22.0	213.5	235.5	"	1,000	1.9	21.2	11.5
1,000 "	"	1,200		19.1	115.0	134.1	"	1,200	2.3	23.6	12.9
1,200 "	"	1,400		21.8	65.7	87.6	"	1,400	2.8	25.0	13.8
1,400 "	"	1,600		27.7	77.1	104.9	"	1,600	3.4	26.6	14.9
1,600 "	"	1,800		26.6	57.3	83.9	"	1,800	3.9	27.8	15.8
1,800 "	"	2,000		29.9	54.0	84.0	"	2,000	4.5	28.9	16.7
2,000 "	"	2,500		217.3	320.6	537.8	"	2,500	9.1	35.6	22.3
2,500 "	"	3,000		230.1	491.4	721.4	"	3,000	13.8	45.9	29.8
3,000 "	"	3,500		168.2	329.6	497.9	"	3,500	17.3	52.8	35.0
3,500 "	"	4,000		124.0	183.1	307.1	"	4,000	19.9	56.6	38.2
4,000 "	"	4,500		108.4	180.1	288.5	"	4,500	22.2	60.4	41.2
4,500 "	"	5,000		92.8	144.7	237.4	"	5,000	24.1	63.4	43.7
5,000 "	"	6,000		225.6	252.5	478.1	"	6,000	28.8	68.7	48.7
6,000 "	"	7,000		192.6	245.5	438.0	"	7,000	32.8	73.8	53.2
7,000 "	"	8,000		247.9	234.2	482.0	"	8,000	37.9	78.7	58.3
8,000 "	"	9,000		319.3	262.6	581.9	"	9,000	44.6	84.2	64.3
9,000 "	"	10,000		344.1	209.2	553.3	"	10,000	51.7	88.6	70.1
10,000 "	"	11,000		397.2	163.0	560.2	"	11,000	60.0	92.0	76.0
11,000 "	"	12,000		310.2	104.7	414.9	"	12,000	66.4	94.2	80.3
12,000 "	"	13,000		320.5	74.1	394.6	"	13,000	73.1	95.7	84.4
13,000 "	"	14,000		241.6	49.3	290.8	"	14,000	78.1	96.8	87.4
14,000 "	"	15,000		205.2	40.2	245.4	"	15,000	82.4	97.6	90.0
15,000 "	"	16,000		170.4	33.0	203.4	"	16,000	85.9	98.3	92.1
16,000 "	"	18,000		247.9	34.4	282.3	"	18,000	91.1	99.0	95.1
18,000 "	"	20,000		141.2	16.6	157.8	"	20,000	94.0	99.4	96.7
20,000 "	"	25,000		164.8	16.1	180.8	"	25,000	97.5	99.7	98.6
25,000 "	"	30,000		49.4	8.7	54.0	"	30,000	98.5	99.8	99.1
30,000 "	"	35,000		30.4		34.5	"	35,000	99.1	99.9	99.5
35,000 "	"	40,000		12.4	*	12.4	"	40,000	99.4	99.9	99.6
40,000 "	"	45,000		11.6		12.9	"	45,000	99.6	99.9	99.8
45,000 "	"	50,000		*		*	"	50,000	99.7	99.9	99.8
50,000 and over				15.1		18.7					
Total				4,809.7	4,779.3	9,589.1	Total		100.0	100.0	100.0
— dollars —											
Median income				9,740	3,300	6,290					
Mean income				10,170	4,720	7,450					

— dollars —

Median income 9,740 3,300 6,290  
Mean income 10,170 4,720 7,450

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TABLE 3. ALL INCOME RECIPIENTS : AGE, PRINCIPAL SOURCE OF INCOME AND MEAN INCOME FROM ALL SOURCES,  
1978-79

Principal source of income																						
Age group (years)	Wages or salary		Own business farm, profession, etc.		Share in partnership		Government social security and welfare cash benefits		Superannuation		Interest, dividends, rent, etc.		Other		Total							
	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)	Number ( <sup>'000</sup> )	Mean income (a) (\$)						
MALES																						
15-19	300.3	4,430	*	*	*	*	43.0	1,840	}	*	*	{	8.7	6,140	7.7	2,410	{	354.3	4,110			
20-24	483.3	8,730	15.1	8,710	17.0	9,200	52.4	2,610														
25-34	902.0	12,280	69.7	13,900	99.9	10,180	46.0	3,540														
35-44	625.2	13,930	77.5	14,020	113.8	10,320	29.5	4,400														
45-54	533.1	13,500	50.4	15,270	93.5	10,730	50.3	2,640	}	8.5	8,630	{	8.4	4,670	*	*	{	855.5	13,040			
55-59	217.8	13,160	27.4	12,660	33.3	11,700	43.4	3,310														
60-64	128.4	11,940	18.9	10,360	22.2	13,330	70.7	3,080														
65 and over	36.9	10,620	15.4	15,930	15.5	10,090	386.8	2,950	42.8	9,510	39.8	8,450	10.7	6,970			{	542.6	5,010			
Total	3,227.0	11,570	276.6	13,580	399.0	10,560	722.3	3,040	65.2	9,310	89.6	6,910	30.1	6,270	4,809.7	10,170						
FEMALES																						
15-19	248.1	3,860	}	*	{	*	78.4	1,500	}	*	*	{	6.6	3,530	}	9.1	2,300	{	339.2	3,280		
20-24	397.3	6,980																				
25-34	524.8	7,720	15.2	7,730	96.4	8,040	450.5	1,150														
35-44	373.5	7,650	18.9	8,990	91.3	8,820	296.2	1,230														
45-54	296.8	7,440	11.9	8,050	64.5	9,290	190.3	1,580	}	8.4	6,520	{	73.0	2,080	}	7.5	6,920	{	645.2	5,270		
55-59	101.4	7,490	}	8.6	9,490	{	27.8	8,180													111.0	2,350
60-64	27.7	8,860																				
65 and over	9.8	9,370	*	*	12.1	9,810	601.4	2,970	12.1	7,200	56.2	6,730	6.2	7,880	{	699.9	3,630					
Total	1,979.4	7,050	62.9	8,170	313.2	8,640	2,066.4	1,980	24.4	6,760	295.7	3,210	37.3	4,830	4,779.3	4,720						
PERSONS																						
15-19	548.4	4,180	*	*	*	*	121.5	1,620	}	*	*	{	9.4	3,540	6.0	2,010	693.5	3,700				
20-24	880.6	7,940	18.6	7,670	25.8	8,930	209.0	1,860														
25-34	1,426.8	10,600	85.0	12,790	196.3	9,130	496.5	1,370														
35-44	998.7	11,580	96.5	13,030	205.1	9,650	325.7	1,520														
45-54	829.9	11,330	62.4	13,890	158.0	10,140	240.7	2,010	}	7.4	6,830	{	81.4	2,340	9.2	4,750	1,388.9	9,100				
55-59	319.2	11,360	32.9	11,860	61.1	10,100	154.5	2,620														
60-64	156.1	11,390	22.0	10,640	33.1	11,980	252.7	2,810														
65 and over	46.7	10,360	19.1	14,680	27.6	9,970	988.2	2,960	54.9	9,000	96.1	7,440	9.9	7,950	1,242.5	4,230						
Total	5,206.4	9,850	339.4	12,580	712.2	9,710	2,788.7	2,250	89.6	8,620	385.3	4,070	67.5	5,470	9,589.1	7,450						

(a) From all sources.



TABLE 4. FULL-YEAR, FULL-TIME WORKERS : EARNED INCOME AND AGE, 1978-79

		Age group (years)							
		15-19	20-24	25-34	35-44	45-54	55-59	60 and over	Total
MALES									
Earned income (\$) -		'000							
1 and under	3,000	7.2	6.9	10.2	6.4	10.8	*	11.1	54.1
3,000 "	5,000	44.6	9.1	23.2	25.9	18.5	10.4	7.8	139.5
5,000 "	7,000	52.9	30.0	38.9	33.2	26.3	12.2	12.2	205.6
7,000 "	10,000	35.3	157.8	164.5	119.2	131.6	56.2	57.1	721.6
10,000 "	12,000	6.4	84.0	204.5	130.4	101.5	60.0	31.3	615.6
12,000 "	14,000		37.5	195.5	123.0	93.6	34.5	28.1	514.0
14,000 "	16,000		16.5	120.7	94.7	71.7	28.3	10.4	342.6
16,000 "	18,000		6.7	70.0	74.5	53.7	15.3	9.3	229.5
18,000 "	20,000			31.0	45.7	30.1	11.0	*	125.8
20,000 "	25,000	6.4	*	30.5	47.5	40.8	10.8	7.2	137.7
25,000 "	30,000			8.7	12.2	12.3			42.0
30,000 "	40,000			8.1	11.1	9.6	12.0	6.2	35.0
40,000 and over				*	7.8	8.2			24.9
Total		146.4	353.6	909.8	731.5	608.6	252.3	185.7	3,187.9
- dollars -									
Median income		5,810	9,490	12,140	12,830	12,330	11,530	10,300	11,540
Mean income		6,110	9,690	12,620	13,650	13,400	12,880	11,260	12,320
FEMALES									
Earned income (\$) -		'000							
1 and under	3,000	*	8.7	*	6.8	*	*	9.1	29.9
3,000 "	5,000	33.1		14.1	13.1	10.5	9.0		81.8
5,000 "	7,000	56.0	41.0	25.2	23.4	19.2			172.9
7,000 "	10,000	16.3	142.5	108.7	96.0	84.5	35.9	11.3	495.2
10,000 "	12,000	*	37.7	68.3	36.9	27.7	9.2	6.1	186.0
12,000 "	14,000		7.9	43.5	19.0	16.2	6.0	*	91.7
14,000 "	16,000			19.4	12.3	9.4			46.8
16,000 "	20,000		*	6.9	6.8	7.3	*	*	27.4
20,000 and over				*	*	*			11.1
Total		108.6	240.7	297.1	218.0	181.6	66.3	30.5	1,142.7
- dollars -									
Median income		5,650	8,490	9,870	9,050	8,990	8,860	8,640	8,740
Mean income		5,520	8,510	10,100	9,310	9,310	9,160	8,170	8,950